Poster #3 - Kazuaki Iijima

Poster Title: **Thermal Stress on Pesticides during GC-MS Injection Process: Comparative Investigation of the Programmed Temperature Vaporizing (PTV) and Split-Splitless (SPL) Injection Techniques**

Brief Abstract:

The thermal stress on pesticides during GC-MS injection process was estimated by the comparative investigation of over 200 pesticides using *At-Column*, Difficult Matrix Introduction (*DMI*) and Split-Splitless injection techniques. The peak area ratios of majority pesticides to the internal standard (anthracen-d_{10}) using the *At-Column* injection technique were larger than the relative response with *DMI* and *SPL*. The results indicate that many pesticides are influenced for their response of GC-MS analysis by thermal decomposition and/or adsorption, especially using the *SPL* injection technique. The pesticides whose difference of the relative response obtained by the three injection techniques were considered to be influenced by the thermal stress during injection process.

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